Abstract of the Disclosure

An exercise-responsive cardiac pacemaker is provided which physiologically controls the stimulation rate of a heart by sensing the venous blood temperature in the right ventricle of the heart. A temperature sensing means which includes a thermister produces an output signal which is sent to an algorithm implementing means for implementing the output signal by an algorithm which represents the mathematical function between venous blood temperature in the right ventricle and heart rate in a normally functioning heart. The algorithm implementing means produces an output signal which is variable between a maximum and minimum level corresponding to the desired maximum and minimum levels of heart rate in a normally functioning heart. The algorithm implementing means is also programmable by telemetry after implantation. A cardiac pacemaker is connected to the algorithm implementing means and is responsive thereto in order to variably control the stimulation rate of the heart.